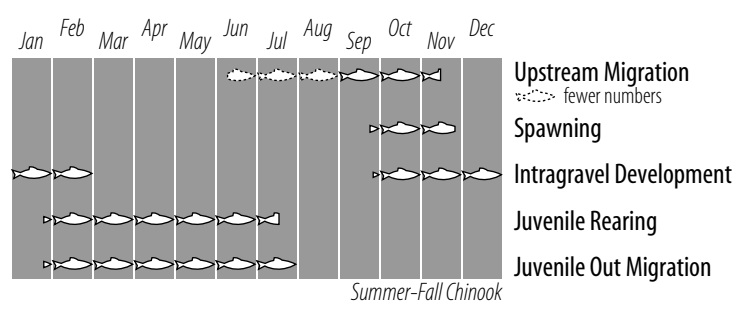


Ancients of the Green



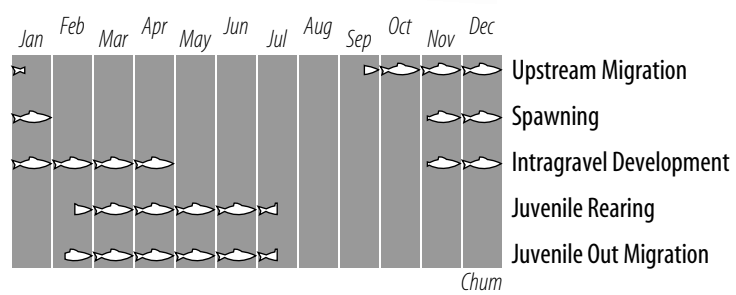
Chinook

Although there continue to be 5,000 to 12,000 chinook that are naturally spawning in the Green River and its tributaries every year, few are the ancient native chinook that once lived in the river. The reasons are varied. The availability of spawning and rearing habitat has steadily declined due to the construction of two upstream dams, modifications to the channels of the mainstem and larger tributaries, and loss of streamside vegetation. In addition, chinook produced at the Green River Hatchery on Soos Creek have strayed and been out-planted into the Green River, mixing and mating with the native fish. This mixed stock enters the river in the early fall, migrating to spawning areas in side channels of the mainstem and larger tributaries, especially Newaukum Creek. Puget Sound Chinook were listed as “threatened” under the Endangered Species Act in 1999.



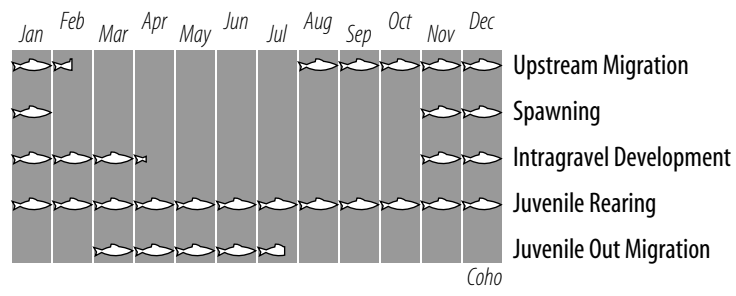
Chum

The native chum of the Green-Duwamish system spawned in the mainstem, sloughs, and major tributaries of the lower river. Because these areas have been channelized, dredged, and otherwise modified with the development of the lower valley, these native stocks are diminished and perhaps gone entirely. Most of the chum that remain in the system, which number as many as 1,500 naturally spawning adults in some years, are produced in the Keta Creek Hatchery on Crisp Creek and are descendants of fish introduced from Quilcene and Hood Canal stocks. While most adult chum are returning to the hatchery, there is a limited amount of natural spawning that occurs in the mainstem and Newaukum, Crisp, and Burns Creeks.



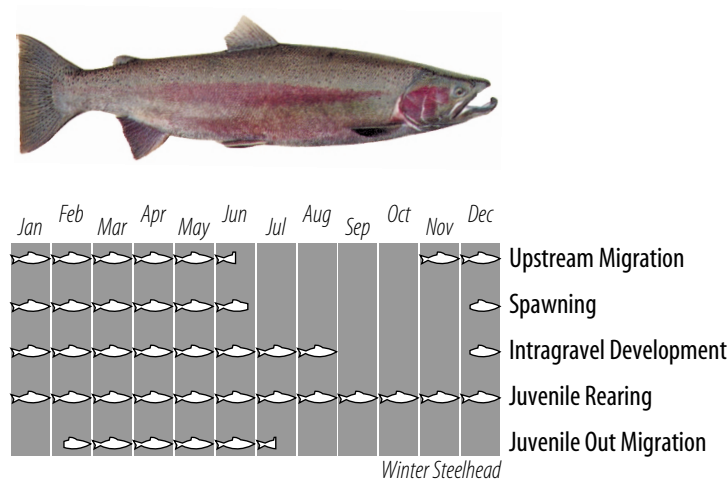
Coho

Like the chinook, the native coho in the Green and Duwamish Rivers have been greatly affected by loss of habitat and coho production at the Keta Creek and Green River Hatcheries. While as many as 12,500 coho returned to spawn in the river in the late 1960's, there have been fewer than 5,000 naturally spawning coho in the river in recent years, and the 700 spawners in the river in 1991 were the fewest on record. Extremely low returns to Newaukum Creek have led the Washington State Department of Fish and Wildlife to categorize the status of this stock as “depressed”, indicating that the run size is low given the available habitat, but has not declined to “critical” levels, where permanent damage to the stock is likely. Coho return to the river from August to January, spawning and rearing in tributary streams.



Steelhead

The winter steelhead are the last of the true “ancients” of the Green-Duwamish system, isolated by geography, run timing, and management, to maintain their wild, native characteristics. Between 1,000 and 2,500 of the wild winter steelhead enter the river in December through May and spawn in the mainstem, lower Newaukum Creek, and nearby tributaries. In addition to the wild steelhead, there are both summer and winter steelhead stocks that are sustained by hatchery-produced smolts that are released into the river, but the high harvest rates (in tribal and sport fisheries) and different spawning times of the hatchery-produced fish minimize competition and interbreeding with the wild fish.



Sockeye *

Sockeye salmon, who typically rely on lakes for rearing, were also believed to be extinct from the Green-Duwamish river basin following the diversion of the Cedar River into Lake Washington in 1916. Recently, adult sockeye have been observed spawning in the mainstem Green River. It is hypothesized that these adult sockeye are strays from an outside basin, a riverine form or sockeye, or some combination of both. Adult sockeye are now frequently observed in low numbers in the Green river basin.



Pink *

Since 1975, adults have not been seen spawning and juveniles have not been reported in this basin. Pink salmon rely heavily on estuarine environment for growth as they move quickly from the river to the saltwater. The Duwamish estuary has lost 97% of its traditional estuarine habitat, impacting the pink runs heavily. However, in the 1990’s, fishery biologists from the Washington State Department of Fish and Wildlife, the Muckleshoot Tribe and King County have noted low numbers of pink salmon adults spawning in the mainstem and a few tributaries and in 2000 juveniles were captured on the mainstem Green River. It is not clear if these fish are strays from other basins attempting to recolonize the Green River or remnant fish from the historic native population.



Bull Trout *

Bull trout information for the Green River is extremely limited as these fish are very hard to find and also hard to distinguish from other native char. Sitings of native char, thus possibly bull trout, have been documented in this basin since 1856. While many possible sitings have occurred, only one bull trout has been documented. That fish was found in the lower stretch of the river in the Duwamish estuary. It is uncertain if this fish was of Green-Duwamish River basin origin or a stray from an outside basin. With the 1999 listing of bull trout as listed under the Endangered Species Act, more information on this species will become available.



Exotic Species

Several exotic species are beginning to be found in the Green-Duwamish river basin. The most notable is the Atlantic salmon. Numerous Atlantic salmon have been found in the mainstem Green River. In fact, there are anglers who actively target these fish annually. Atlantic salmon are most often escaped from food production rearing ponds. If Atlantic salmon become more established, they are a potential threat to native salmon as they compete for limited resources.

* Little information is known on rearing and lifecycle patterns on the Green River for these species.
Text: Kerwin, J. In Progress. Salmon and Steelhead Habitat Limiting Factors • Report for the Green River Basin (Water Resource Inventory Area 9). • Washington Conservation Commission. Olympia, WA.

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